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Agency of Human Services
Department of Mental Health and Mental Retardation
103 South Main Street
Waterbury, Vermont 05671-1601

MEMORANDUM

TO: Vermont Adult Performance Indicator Project Advisory Group

FROM: John A. Pandiani
Lucille Schacht

DATE: April 3, 1997

RE: Incarceration Rates

I have enclosed the results of our preliminary analysis of incarceration rates for CRT clients of Vermont's ten CMHCs.

Once again, I look forward to hearing your comments on the quality of the data, the appropriateness of the analysis, the presentation of the data, and possible interpretations of the results at our next meeting on April 10.

The meeting on April 10 will be held in the Smuggler's Notch Room in the basement of the Osgood building at the state office complex in Waterbury. (The Smuggler's Notch Room is located across the hall from where the January meeting was held.) The meeting will begin promptly at 10 a.m. and will include a DDMHS brown bag luncheon on the topic of Access to Mental Health Services.

INCARCERATION RATES

For People Served by Community Rehabilitation and Treatment Programs in Vermont

QUESTION: How do incarceration rates for people served by Community Rehabilitation and Treatment (CRT) programs vary among Community Mental Health Centers (CMHCs) in Vermont? (This question is related to concerns that increasing numbers of people with mental illnesses are involved, often inappropriately, with the criminal justice system.)

DATA: Two data sets were used in this analysis. The Quarterly Service Report (QSR) data base maintained by the Vermont Department of Developmental and Mental Health Services (DDMHS) includes basic demographic and clinical information for all clients served by CRT programs for adults with a severe and persistent mental illness. The Correctional Facilities data base maintained by the Vermont Department of Corrections includes basic demographic data and information on the offenses of people who spent time in community corrections facilities, local lockups, and work camps in the state. The Correctional Facilities data base includes unique person identifiers, and the QSR data base does include clinic specific unique person identifiers, but there is no unique person identifier shared by mental health and corrections.

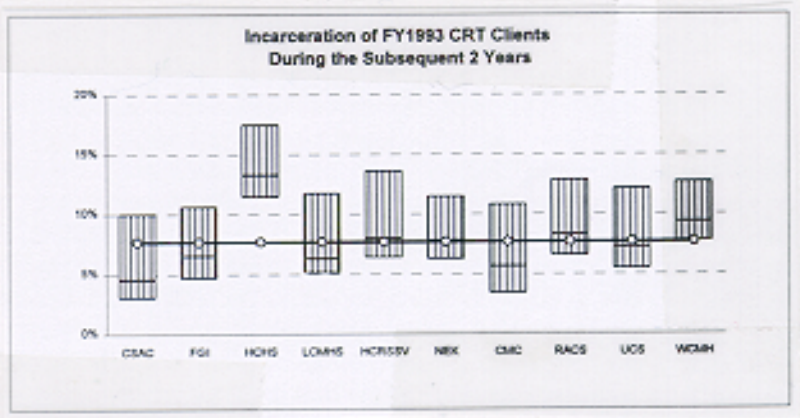
ANALYSIS: The analysis presented here approaches the issue of criminal justice involvement of CRT clients from three distinct perspectives. First, incarceration rates subsequent to treatment are used as a measure of treatment outcomes. Specifically, the proportion of the FY1993 CRT clients who were subsequently incarcerated during FY1994 or FY1995 was determined for each of Vermont's ten CRT programs using the probabilistic population overlap statistic[1]. A lower rate of subsequent incarceration may be interpreted as indicating a more favorable criminal justice outcome.

Because criminal justice outcomes may be strongly influenced by the degree to which individual CRT programs are open to people with a criminal justice history, a second measure of criminal justice involvement was applied to each CRT program. This second measure uses incarceration rates prior to treatment as a measure of the accessability of services. Specifically, the proportion of FY1993 CRT clients who had been incarcerated in Vermont during the previous two years was determined for each of the state's CRT programs using the probabilistic population overlap statistic. A higher rate of previous incarceration may be interpreted as indicating a more accessible program to people with a criminal justice history.

Finally, an adjusted measure of criminal justice outcomes that combines the two measures introduced above is presented. This adjusted measure uses previous incarceration rates to make subsequent incarceration rates a more meaningful measure of program performance. A simple measure of this adjusted outcome is derived by dividing a program's subsequent incarceration rate by its previous incarceration rate. An adjusted outcome ratio equal to 1.00 would indicate that the number of CRT clients who were incarcerated after treatment was equal to the number who were incarcerated before treatment. An adjusted outcome ratio that is less than 1.00 would indicate that clients of a program were less likely to be incarcerated after being served than before being served by the program (e.g if 10% of the clients of program had been incarcerated before being served and 5% were incarcerated after being served, the adjusted outcome measure would be 5% divided by 10%, or 0.50).

Whenever parameters derived by probabilistic population statistics are used in the discussion of findings, the point estimate is followed by the symbol (%±) rather than including specific confidence intervals with every parameter. This convention was adopted to enhance the readability of the text. The precise confidence intervals, however, are included in the table on the second page of this document and are represented on the graphs of the results.

RESULTS: On average, 7.7%± of the people served by CRT programs in Vermont during FY1993 were incarcerated in the state during FY1994 or '95. Two CRT programs had higher than average incarceration rates. The Howard Center for Human Services in Burlington had the

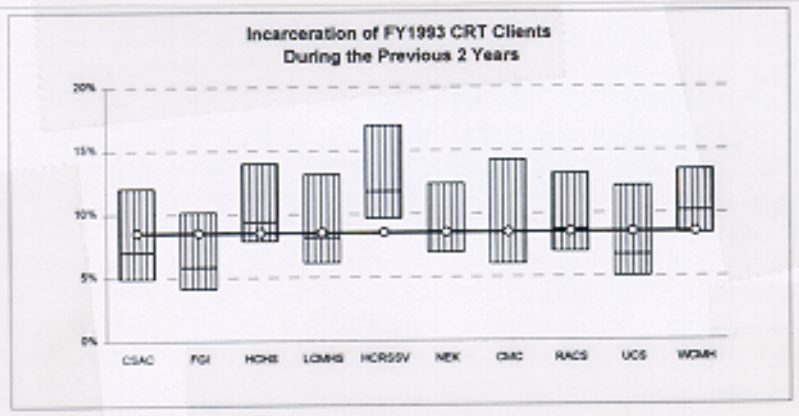


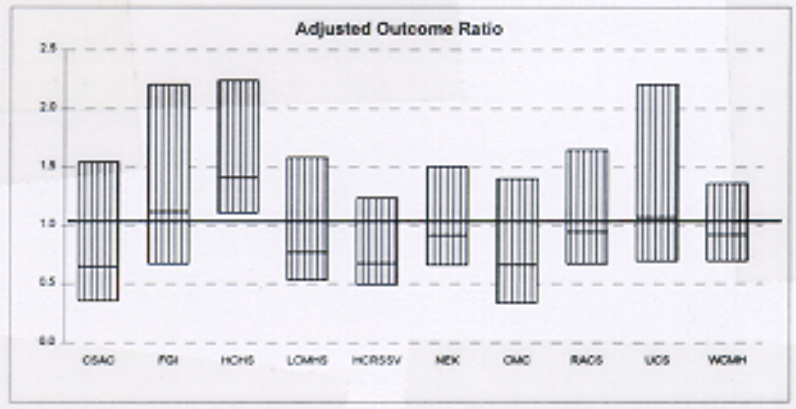
[1]Banks, SM and Pandiani, JA (1996) *Mathematical Derivation and Properties of the Probabilistic Population Estimator*, Paradigm Associates, Albany, NY.

highest incarceration rate, with more than 13%± of its FY1993 CRT clients incarcerated during the next two years, and Washington County Mental Health had an incarceration rate of 9.4%± during the same period. The incarceration rates for the other eight CRT programs were not different from the statewide average.

On average, 8.5%± of the people served by CRT programs in Vermont during FY1993 were incarcerated in the state during FY1991 or '92. The CRT program at Health Care and Rehabilitation Services of Southeastern Vermont had a higher than average previous incarceration rate. At Southeast, 11.8%± of the FY1993 CRT clients had been incarcerated during the previous two years. The incarceration rates for the other nine CRT programs were not different from the statewide average.

The adjusted outcome ratio indicates that clients of the CRT program at the Howard Center for Human Services during FY1993 were significantly more likely to be incarcerated during the two subsequent years than they had been during the two previous years. Differences between prior and subsequent incarceration rates for the other nine CRT programs were not statistically significant.





NEXT QUESTIONS: The results of this analysis suggest a number of interesting areas for further investigation including change over time, sources of regional variation, and differences in rates for different subpopulations.

Do these incarceration rates tend to remain remain constant over time, or do they vary from year to year? Would adjusted outcomes for individual providers look different if a different base year were selected?

Are the differences in incarceration rates related to characteristics of the regions of the state such as urbanization, location of community correctional facilities, socio-economic characteristics, etc?

Most of the people that are incarcerated in Vermont are young men. Would age and gender specific incarceration rates produce different results for individual CRT programs? Do clients of other community mental health programs (adult outpatient and substance abuse, for example) have incarceration rates that are similar to clients of CRT programs?

Incarceration Rates for CRT Clients Served During FY1993

Program	Clients Served	Percent Incarcerated				Adjusted Outcome Ratio	
		During the Previous 2 Years		During the Subsequent 2 Years			
	FY1993	Point Estimate	95% Confidence	Point Estimate	95% Confidence	Point Estimate	95% Confidence
CSAC	123	7.0%	5.0 - 12.1%	4.5%	3.0 - 10.0%	0.65	0.36 - 1.55
FGI	189	5.8%	4.2 - 10.2%	6.5%	4.7 - 10.7%	1.12	0.67 - 2.21
HCHS	587	9.4%	7.9 - 14.0%	13.3%	11.5 - 17.5%	1.41	1.11 - 2.24
LCMHS	162	8.1%	6.1 - 13.2%	6.3%	5.1 - 11.8%	0.77	0.53 - 1.59
HCRSSV	324	11.8%	9.6 - 17.0%	8.0%	6.4 - 13.6%	0.68	0.50 - 1.24
NEK	463	8.6%	6.9 - 12.3%	7.9%	6.3 - 11.5%	0.92	0.66 - 1.51
CMC	103	8.6%	6.0 - 14.3%	5.7%	3.4 - 10.8%	0.66	0.33 - 1.41
RACS	286	8.8%	7.0 - 13.2%	8.3%	6.6 - 12.8%	0.95	0.67 - 1.65
UCS	217	6.7%	5.0 - 12.2%	7.2%	5.5 - 12.1%	1.07	0.70 - 2.21
WCMH	615	10.2%	8.4 - 13.4%	9.4%	7.8 - 12.7%	0.92	0.69 - 1.36